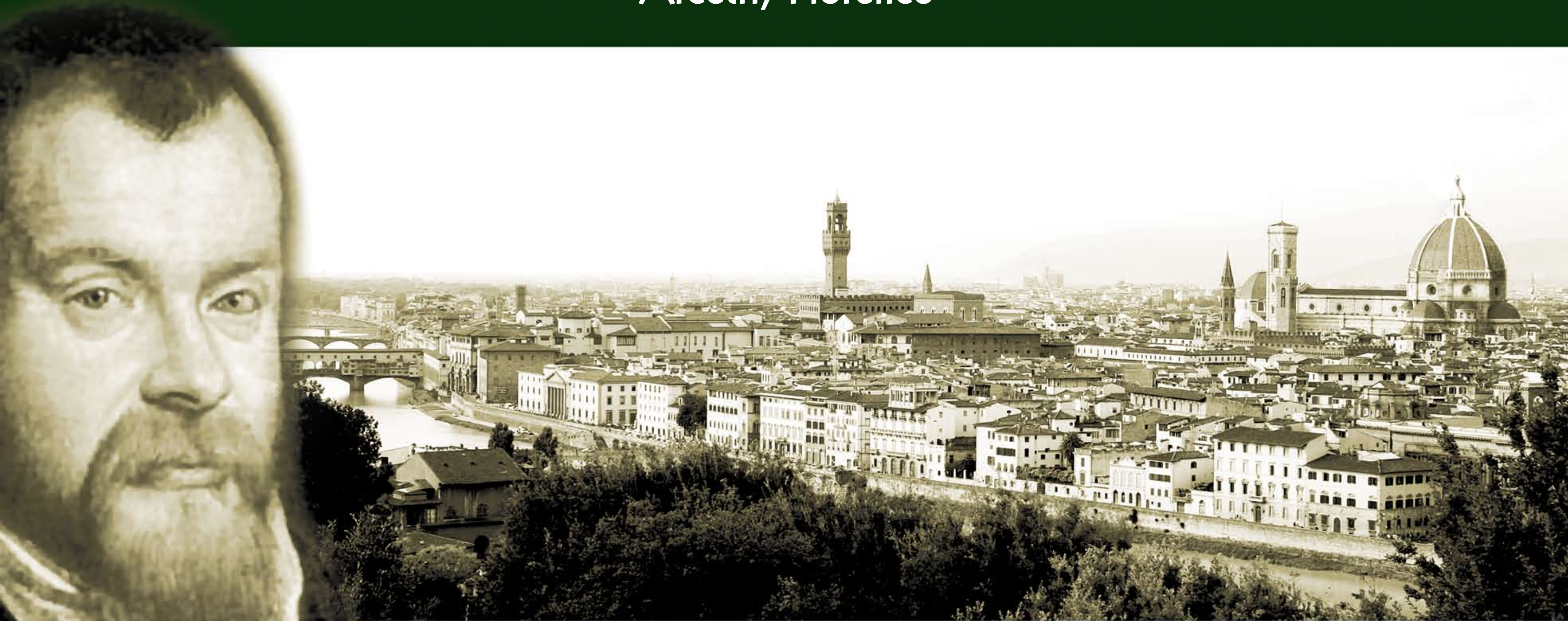




The Galileo Galilei Institute for Theoretical Physics Arcetri, Florence



New Perspectives in String Theory

6 April - 19 June 2009

Galileo Galilei

Topics:

- Quest for basic principles of string theory
- Covariant quantization and pure spinor approach
- Gauged supergravity and flux compactifications
- D-brane instantons and other non-perturbative effects
- Topological strings and microstate counting
- Black Holes and Attractors
- Holographic correspondence and Higher-Spin Theories
- String dynamics in curved and time-dependent backgrounds
- Applications to Particle Physics and Cosmology

Starting from Veneziano's 1968 amplitude, String Theory has experienced forty years of intense development and has led to remarkable developments in several areas of Particle Physics and Cosmology. The key problem today is to identify its basic principles. The proposed twelve-week extended workshop aims at addressing the most acute and urgent problems in String Theory, including non-perturbative formulations, vacuum stabilization and holographic interpretation, and to draw lines of attack for future investigations.

The workshop will start with a short opening Conference in early April.

A one-week School will take place in June.

The "Strings 2009" Conference, to be held in Rome, will follow the end of the workshop late in June.

Organizers:

Costas Bachas (Ecole Normale Supérieure, Paris, France)

Massimo Bianchi (Università di Roma "Tor Vergata", Italy)

Michel Green (DAMTP, Cambridge University, UK)

Jeff Harvey (Chicago University, USA)

Augusto Sagnotti (Scuola Normale Superiore, Pisa, Italy)

Ashoke Sen (Harish-Chandra Research Institute, Allahabad, India)